AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Original) A polarizer array which has a multilayer structure in which at least two transparent materials are alternately laminated in a z direction on one substrate parallel to an x-y plane in an orthogonal coordinate system x, y, andz, wherein the multilayer structure is divided into at least three regions in the x-y plane, each layer has one-dimensional periodic concave and convex shapes repeated in one direction defined in each region on the x-y plane, and, with respect to light being incident on the x-y plane in a perpendicular or oblique direction, only a polarized light parallel or perpendicular to the concave and convex shape in each region is transmitted.

2. (Original) The polarizer array according to claim 1, wherein repeating directions of the one-dimensional periodic concave and convex shapes are different from each other by 45° or less in the at least three regions.

3. (Currently Amended) The polarizer array according to claim 1 ~~or 2~~, wherein the multilayer structure has at least one region in which the repeating direction of the one-dimensional periodic concave and convex shapes is set at 0° to an x axis, at least one region in which the repeating direction of the one-dimensional periodic concave and convex shapes is set at 45° to the x axis, and at least one region in which the repeating direction of the one-dimensional periodic concave and convex shapes is set at 90° to the x axis.

4. (Original) A polarization analyzer comprising: the polarizer array according to any one of claims 1 to 3 and a light-receiving array which can independently receive light transmitted through the regions.

5. (Currently Amended) The polarization analyzer according to claim 4, wherein a quarter waveplate is arranged in at least one region of the polarizer array ~~according to any one of claims 1 to 3~~ such that the quarter waveplate serves as a common optical path on a light incident side.

6. (Original) A waveplate which has a multilayer structure in which at least two transparent materials are alternately laminated in a z direction on one substrate parallel to an x-y plane in an orthogonal coordinate system x, y, and z, wherein the multilayer structure is divided into at least two regions in the x-y plane, each layer has one-dimensional periodic concave and convex shapes parallel to the x-axis direction in at least one of the regions, each layer is flat in at least one of the other regions, and a phase difference between orthogonal polarized light is given to light which is incident in a direction unparallel to the substrate and which is transmitted through the region having the one-dimensional periodic concave and convex shapes.

7. (Currently Amended) The polarization analyzer according to claim 4, wherein ~~the~~ a waveplate ~~according to claim 6 and~~ operating as a quarter waveplate is arranged in at least one region of the polarizer array ~~according to any one of claims 1 to 3~~ such that the waveplate serves as a common optical path on a light incident side, wherein the waveplate which has a multilayer structure in which at least two transparent materials are alternately laminated in a z direction on one substrate parallel to an x-y plane in an orthogonal coordinate system x, y, and z, wherein the multilayer structure is divided into at least two regions in the x-y plane, each layer has one-dimensional periodic concave and convex shapes parallel to the x-axis direction in at least one of the regions, each layer is flat in at least one of the other regions, and a phase difference between orthogonal polarized light is given to light which is incident in a direction unparallel to the substrate and which is transmitted through the region having the one-dimensional periodic concave and convex shapes.

8. (Currently Amended) The polarization analyzer according to claim 4, ~~5, or 7~~, wherein the light-receiving device array is any one of a photodetector, a CCD, and an image pickup tube.

9. (Currently Amended) A polarization stabilizer comprising: the polarization analyzer according to claim 4, ~~5, or 7~~; a means for splitting a light beam; and a means for controlling polarization.

10. (Currently Amended) A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 4, ~~5, 7, or 8~~; and a means for being able to give a variable phase difference between orthogonal polarization modes.

11. (New) The polarization analyzer according to claim 5 wherein the light-receiving device array is any one of a photodetector, a CCD, and an image pickup tube.

12. (New) The polarization analyzer according to claim 7 wherein the light-receiving device array is any one of a photodetector, a CCD, and an image pickup tube.

13. (New) A polarization stabilizer comprising: the polarization analyzer according to claim 5; a means for splitting a light beam; and a means for controlling polarization.

14. (New) A polarization stabilizer comprising: the polarization analyzer according to claim7; a means for splitting a light beam; and a means for controlling polarization.

15. (New) A polarization mode dispersion compensator comprising: the polarization

analyzer according to claim 5; and a means for being able to give a variable phase difference between orthogonal polarization modes.

16. (New) A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 7; and a means for being able to give a variable phase difference between orthogonal polarization modes.

17. (New) A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 8; and a means for being able to give a variable phase difference between orthogonal polarization modes.